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English (Asia Pacific)

**NEW** APAN3106 | PA-N Relays

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RoHS compliant
Lead Free

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Product Number **APAN3106** [+ Favorite](#)

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Part Number **APAN3106**

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Product name **PA-N Relays**

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Features **1 Form A 5A slim power relay complies with IEC61010 reinforced insulation**

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**Spec Detail**

As of April 29, 2016

Item	Specifications
Product Number	APAN3106
Part Number	APAN3106
Protective construction	Sealed Type
Terminal shape	PC board through hole terminal
Contact arrangement	1 Form A (Bifurcated)
Contact resistance (Initial)	Max.30m (By voltage drop 6 V DC 1A)
Contact material	AgNi type + Au
Nominal switching capacity (Resistive load)	5A 250V AC, 5A 30V DC
Contact carrying power (Resistive load)	1,250VA, 150W
Max. switching voltage	250V (AC), 110V (DC) (0.4A)
Max. switching current	5A (AC, DC)
Nominal coil voltage	6V DC
Pick-up voltage	70%V or less of nominal voltage (Initial)
Drop-out voltage	5%V or more of nominal voltage (Initial)
Nominal operating current [±10%] (at 20°C 68°F)	18.3mA
Coil resistance [±10%] (at 20°C 68°F)	327

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Nominal Operating Power	110mW
Max. applied voltage (at 20°C 68°F)	120%V of nominal voltage
Min. switching capacity (reference value)	1mA 5V DC
Insulation distance (Between contact and coil)	Clearance: Min. 5.29mm .208inch Creepage distance: Min. 5.35mm .211inch
Insulation resistance (Initial)	Min.1,000M (at 500V DC) Measurement at same location as "Breakdown voltage" section.
Breakdown voltage (Between open contact) (Initial)	1,000 Vrms for 1 min. (Detection current: 10mA)
Breakdown voltage (Between contact and coil) (Initial)	3,000 Vrms for 1 min. (Detection current: 10mA)
Surge breakdown voltage (Between contact and coil) (Initial)	6,000 V
Operate time (at 20°C 68°F)	Max.10ms (at Nominal coil voltage, excluding contact bounce time) (Initial)
Release time (at 20°C 68°F)	Max.5ms (at Nominal coil voltage, excluding contact bounce time) (without diode) (Initial)
Shock resistance (Functional)	Min. 147m/s <sup>2</sup> (Half-wave pulse of sine wave: 11ms; detection time: 10μs.)
Shock resistance (Destructive)	Min. 980 m/s <sup>2</sup> (Half-wave pulse of sine wave: 6ms.)
Vibration resistance (Functional)	10 to 55 Hz at double amplitude of 2.5mm (Detection time: 10μs.)
Vibration resistance (Destructive)	10 to 55 Hz at double amplitude of 3.5mm
Expected life (Mechanical)	Min.2x10 <sup>7</sup> (at 180 times/min)
Expected life (Electrical)	Min. 10 <sup>5</sup> (3A 250V AC, 30V DC, resistive load) Min. 5x10 <sup>4</sup> (5A 250V AC, 30V DC, resistive load) (at 20 times/min) Operating frequency of 5A 250V AC is 6 times/min. (ON : OFF = 1 s : 9 s)
Conditions	Ambient temperature: -40°C to 90°C -40°F to 194°F; Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)
Max. operating speed	20 times/min. (at nominal switching capacity) Operating frequency of 5A 250V AC is 6 times/min. (ON : OFF = 1 s : 9 s)
Unit weight	Approx. 3g 15 oz
Operating function	Single Side Stable Type
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**Information on Compliance with Standards**

Standard Name	Status	Information on Compliance	
UL/C-UL	Approval	File No.	E43149
		Rating	5A 250V AC Resistive 40°C 50,000cycles 5A 250V AC Resistive 90°C 10,000cycles 5A 30V DC General use 40°C 50,000cycles 5A 30V DC 3A 250V AC General use 90°C 10,000cycles 3A 250V AC Resistive 40°C 100,000cycles 3A 30V DC General use 40°C 100,000cycles B300, R300 Pilot Duty 40°C 6,000cycles
		Remarks	E479891 Class I, Division2, Groups A, B, C, D Hazardous Location (ANSI/ISA 12.12.01-2015, CAN/CSA C22.2 No.213-15)
		Last update	December 21, 2015
CSA	N/A	File No.	-

Standard Name	Status	Information on Compliance	
		Rating	-
		Remarks	CSA standard certified by C-UL
		Last update	December 21, 2015
TUV	Approval	File No.	B 16 01 13461 348
		Rating	5A 250V AC (cos =1.0) 40°C 50,000cycles 5A 250V AC (cos =1.0) 90°C 10,000cycles 5A 30V DC (0ms) 40°C 50,000cycles 5A 30V DC (0ms) 90°C 10,000cycles 3A 250V AC (cos =1.0) 40°C 100,000cycles 3A 30V DC (0ms) 40°C 100,000cycles
		Remarks	-
		Last update	January 7, 2016
		Insulation distance (between contact and coil) Clearance distance: 5.29mm Cleeepage distance: 5.35mm	

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Product Number: <b>PA1a-PS</b>	Product Number: <b>PA1a-PS-H</b>
Part Number: <b>APA831</b>	Part Number: <b>APA832</b>
Product: <b>PA Relay Standard type terminal socket</b>	Product: <b>Self clinching type terminal socket</b>
Product name: <b>PC board socket</b>	Product name: <b>Self clinching type terminal socket</b>

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